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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/517,907	03/03/2000	Krishna Balachandran	Bal*9/LLUC-114H	5608

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EXAMINER
JUNTIMA, NITTAYA

ART UNIT	PAPER NUMBER
2663	6

DATE MAILED: 06/05/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

BY

Office Action Summary	Application No.	Applicant(s)	
	09/517,907	BALACHANDRAN ET AL.	
	Examiner	Art Unit	
	Nittaya Juntima	2663	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *03 March 2000* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-28* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-21 and 23-28* is/are rejected.

7)☒ Claim(s) *10-18 and 22* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *03 March 2000* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☒ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

DETAILED ACTION

Oath/Declaration

1. The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

The oath or declaration is defective because:

- It does not identify the citizenship of inventor #2 (Dravida, S.) and inventor #6 (Vitebsky, S.).

- It does not identify the city and either state or foreign country of residence of inventor #2 (Dravida, S.).

- It does not provide a post office address of inventor #2 (Dravida, S.) anywhere in the application papers as required by 37 CFR 1.33(a), which was in effect at the time of filing of the oath or declaration.

- It does not include signature and date of each inventor.

Drawings

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: ***a mobile station (MS) 104 in Fig. 1***. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

3. The disclosure is objected to because of the following informalities:

- on page 25, a U.S Patent Application Serial No. is missing.

Appropriate correction is required.

Claim Objections

4. Claims 6 and 22 are objected to because of the following informalities:

- in claim 6, line 4, "identity" should be changed to "identities;"
- in claim 22, line 1, "claim 19" should be changed to "claim 21;" and
- in claim 27, line 2, "a" should be changed to "an."

Appropriate correction is required.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the

reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claim 1-3, 6-9, 19-21, and **23-24** are rejected under 35 U.S.C. 102(b) as being anticipated by Bilstrom et al. (USPN 5,910,949).

Per **claim 1**, Bilstrom et al. teach a method for media access control feedback over a packet channel (a PDCH channel, i.e. FDCCH or RDCCH as shown in Fig. 7, col. 12, lines 14-27 and Fig. 11) divided in channel time slots comprising the steps of ***dividing the channel time slots into sub-channel time slots*** (as shown in Fig. 11, the channel time slots of FPDCH and RPDCH are divided into sub-channel time slots), ***defining a packet channel feed back field*** (a PCF field) ***associated with each sub-channel time slot*** (the PEQ flag in the PCF field is used to assign the sub-channels of the RPDCH, col. 12, lines 39-44 and 66-67-col. 13, lines 4), and ***indicating acknowledgements using the packet channel feedback field*** (R/N flag and PE flag in PCF, col. 12, lines 39-44 and 47-55).

Per **claim 2**, Bilstrom et al. teach ***assigning an active mobile identity*** (the mobile station identity code) ***associated with an active mobile station*** (since the mobile station identity code is sent as part of the mobile station access attempt, therefore, it is inherent that the mobile station identity code is assigned to the mobile station, col. 12, lines 49-55), and ***including the active mobile identity in the packet channel feedback field*** (PE, which is equal to the seven least significant bits of the mobile station identity code, is part of the PCF field, col. 12, lines 49-55).

Per **claim 3**, Bilstrom et al. teach that ***the assigned active mobile identity is used to identify an active mobile station to receive packet data signals*** (PE flag is set to the mobile station identity code to identify a mobile station to receive the PCF fields and bursts, col. 12,

lines 49-55, Table 1, and Fig. 13, col. 22, lines 16-17, 21-28 and 53-60, see also col. 2, lines 49-64).

Per **claim 6**, Bilstrom et al. teach ***assigning a plurality of active mobile identities*** (it is inherent that a plurality of active mobile identification codes is assigned to the mobile stations when they are more than one mobile station in the system, col. 12, lines 49-55) ***and ones of the active mobile identities are reserved for special functions*** (special functions are not defined, therefore, read on PE flags in the PCF field, col. 12, lines 49-55).

Per **claim 7**, Bilstrom et al. teach ***assigning a plurality of active mobile identities*** (it is inherent that a plurality of active mobile identification codes is assigned to the mobile stations when they are more than one mobile station in the system and since PE flag is set to the mobile station identity and the mobile station identity code has at least 7 bits, it is also inherent that there is a plurality of bit combinations which can be used as mobile identifiers, col. 12, lines 49-55), and ***assigning a subset of the active mobile identities as mobile station identifiers*** (since the mobile station identity code has at least 7 bits, therefore, it is inherent that a subset of all possible bit combinations is used as mobile station identifiers).

Per **claim 8**, Bilstrom et al. teach that ***the assigned active mobile identity is used to indicate a time slot assignment for the active mobile station*** (PE flag is set to 1, which is the mobile station identity code of MS 1, to indicate a time slot assignment, i.e. n+4, n+5, and n+6 on the uplink, for MS 1, Table 1 and Fig. 13 and col. 22, lines 16-41).

Per **claim 9**, Bilstrom et al. teach ***transmitting packet data signals on an uplink over the packet channel based on the time slot assignments*** (MS1 transmits bursts $D1_2$, $D1_3$, and $D1_4$ on

the time slot assignment, i.e. n+4, n+5, and n+6, on the uplink over a full-rate PDCH, Table 1 and Fig. 13 and col. 22, lines 9-10 and 16-41).

Per **claim 19**, Bilstrom et al. teach ***a mobile station*** (a mobile station) and ***a base station*** (the communication system, i.e. a base station), ***transmitting from the mobile station a request to initiate packet data transmissions*** (a request to initiate packet data transmissions is not defined, therefore, reads on the first burst of many more bursts) ***to the base station based on the packet channel feedback field*** (a mobile station sends the first burst of its access attempt using the corresponding RPDCH upon fining a FPDCH slot with a PCF field with BRI flag = Idle, col. 15, lines 28-30 and 38-39), ***including a suggested active mobile identity value*** (a suggested active mobile identity value is not defined, therefore, reads on a mobile station identity code) ***in the request*** (a mobile station identity code is sent as part of the mobile station access attempt, col. 12, lines 49-55), and ***awaiting an acknowledgement*** (a combination of R/N and PE flags in the PCF field) ***from the base station in the packet channel feedback field*** (a combination of R/N and PE flags in the PCF field is sent from the base station to the mobile station, col. 15, lines 30-32 and Table 4, see also col. 12, lines 39-60).

Per **claim 20,** Bilstrom et al. teach ***an acknowledgement*** (PE field) ***in the packet feedback field indicates acceptance of the suggested active mobile identity*** (PE field in PCF match occurs, col. 15, lines 28-32 and 36-39, and Table 4).

Per **claim 21**, Bilstrom et al. further teach ***if a negative acknowledgement*** (no PE match with R/N = Received) ***is received in the PCF field, waiting a time period*** (a time period is not defined, therefore, reads on random delay with a granularity of 1 TDMA block) ***before the***

mobile station makes another request (col. 15, lines 32-36, and col. 14, lines 52-57 64-67-col. 15, lines 1-8).

Per **claim 23**, Bilstrom et al. teach ***a time slotted packet channel*** (a PDCH channel, i.e. FDPCH and RDPCH), ***creating sub-channel time slots associated with the time slotted packet channel*** (a PDCH channel, i.e. FDCCH or RDCCH as shown in Fig. 7, col. 12, lines 14-27 and Fig. 11 are divided into sub-channel time slots), ***defining an active mobile identity with an active mobile station*** (since the mobile station identity code is sent as part of the mobile station access attempt, it is inherent that an active mobile identification code is assigned to the mobile station, col. 12, lines 49-55), ***and identify acknowledgements (PE flag in PCF field) using the active mobile identity*** (PE flag of the PCF field is set to the seven least significant bits of the mobile station identity code, col. 12, lines 49-60).

Per **claim 24**, Bilstrom et al. teach ***identifying assignments of sub-channel time slots based on the active mobile identity*** (PE flag is set to 1, which is the mobile station identity code of MS 1, to indicate sub-channel time slots, i.e. n+4, n+5, and n+6 on the uplink, for MS 1, Table 1 and Fig. 13 and col. 22, lines 16-41).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bilstrom et al. (USPN 5,910,949) in view of Hulthen et al. (USPN 6,073,016).

Per **claim 5,** Bilstrom et al. does not teach assigning the active mobile identity during a transaction initiation procedure in the system. However, Hulthen et al. teach ***assigning the active mobile identity*** (an identification code) ***during a transaction*** (a session) ***initiation procedure in the system*** (the system 50 as shown in Fig. 1, col. 4, lines 56-59) (col. 9, lines 51-58 and col. 11, lines 6-13, and Fig. 5A).

Given the teaching of Hulthen et al., it would have been obvious to one skilled in the art to include assigning the active mobile identity (an identification code) during a transaction (a session) initiation procedure in the system into the method of Bilstrom et al. to ensure a proper authorization for network access as taught by Hulthen et al. (col. 5, lines 46-50 and 53-58).

Claims 4 and **25-28** are rejected under 35 U.S.C. 103(a) as being unpatentable over Bilstrom et al. (USPN 5,910,949).

Per **claims 4** and **25**, Bilstrom et al. does not teach invalidating the active mobile identity after one transaction of packet data signals. However, it would have been obvious to one skilled in the art to modify the method of Bilstrom et al. by invalidating the active mobile identity (the mobile station identity code) after one transaction of packet data signals so that the active mobile identity can be recycled and used in assigning mobile station identification for a new transaction of packet data signals.

Per **claim 26**, Bilstrom et al. teach teach ***a communication device*** (a mobile station), ***a packet channel*** (a PDCH channel), ***identifying acknowledgements and assignments of time slots on the packet channel based on a packet channel feedback field*** (a mobile station MS1

identifies acknowledgements, i.e. R/N and PE flags, and assignments of time slots, i.e. PEQ flag based on PE, BRI (assignment flag), and R/N flags for MS1 is equal to 0,1 to indicate assignments of time slots n+4, n+5, and n+6 on up-link for MS1, col. 22, lines 9-10, 12-14, 16-28, 21-28, and 31-43, and Fig. 13, see also Table 1), and ***controlling access to the packet channel based on the acknowledgements and assignments*** (col. 22, lines 39-46 and 53-60, and col. 23, lines 5-7). However, Bilstrom et al. fails to teach a sub-channel controller and a channel access manager.

It would have been obvious to one skilled in the art to incorporate a sub-channel controller and a channel access manager into the communication device of Bilstrom et al. for automatic execution of the functions as recited in claim 1 above.

Per **claim 27**, Bilstrom et al. teach ***the sub-channel controller identifies acknowledgements based on the packet channel feedback field and an active mobile identity*** (a mobile station identity code, col. 12, lines 39-42, 44-60) ***associated with the communication device*** (a mobile station MS1 identifies acknowledgements, i.e. R/N and PE (set to 1 which is a mobile station identity code of MS1), col. 22, lines 9-10, 12-14, 16-28, 21-28, and 31-43, and Fig. 13, see also Table 1),

Per **claim 28**, Bilstrom et al. teach ***the device is a mobile station*** (a mobile station, MS1, Fig. 3, col. 22, lines 9-10, 12-14, 16-28, 21-28, and 31-43).

Allowable Subject Matter

7. Claims 10-18 and 22 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base

claim and any intervening claims.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nittaya Juntima whose telephone number is 703-306-4821. The examiner can normally be reached on Monday through Friday, 8:00 A.M - 5:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau Nguyen can be reached on 703-308-5340. The fax phone numbers for the organization where this application or proceeding is assigned are 703-746-9408 for regular communications and 703-827-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

Nittaya Juntima
June 2, 2003

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